

## Supporting Information

### **A dense SERS substrate of AgNPs@GO compound film for detecting homocysteine molecules**

**Song He<sup>1,2</sup>, Li Yang<sup>2,3</sup>, Tianwen Xu<sup>2,3</sup>, Xishun Peng<sup>2,3</sup>, Qixin chen<sup>3</sup>, Xinghua Li<sup>3</sup>, Yiheng Yuan<sup>2,3</sup>, Cheng Zuo<sup>3</sup>, Xin Zhang<sup>3</sup>, Zhongchen Bai<sup>2,3\*</sup>**

<sup>1</sup>. Guizhou provincial people's hospital, Guiyang City, 550002, China

<sup>2</sup>. College of Medicine, Guizhou University, Guiyang City, 550025, China

<sup>3</sup>. Guizhou Province Key Lab. for Photoelectric Technology and Application, Guizhou University, Guiyang City, 550025, China.

E-mail: [zcbai@gzu.edu.cn](mailto:zcbai@gzu.edu.cn)

## Supporting Figures

### 1. Figure S1

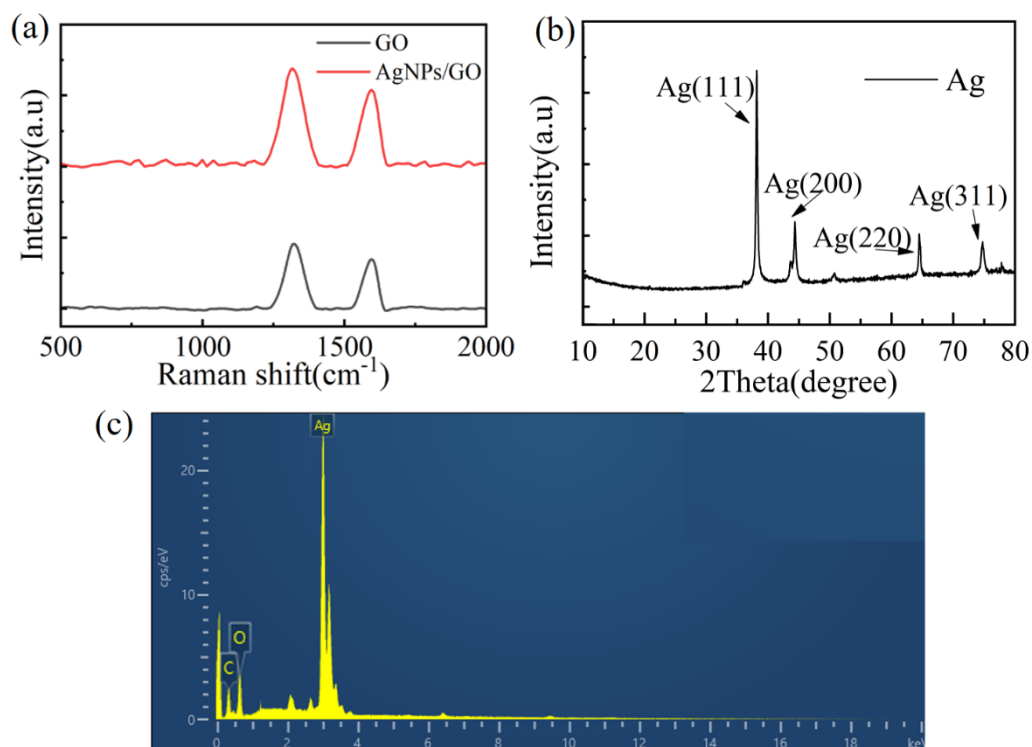


Figure S1. (a) Raman spectra of GO and AgNPs@GO; (b) XRD picture of AgNPs of AgNPs@GO; (c) EDS spectrum of AgNPs@GO SERS substrate.

### 2. Figure S2

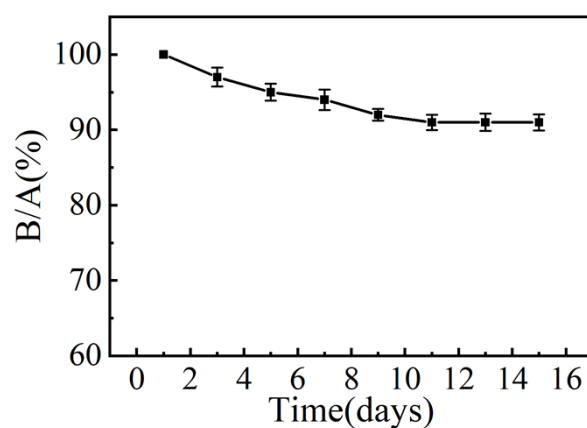


Figure S2. Stability of the optimal AgNPs@GO SERS substrate.

## Supporting Tables

Table S1. SERS enhancement factors of different electrodeposition times.

Samples	1	2	3	4	5	6
Depositing time (min)	0	10	20	30	40	50
Peak value (units)	23	1036	11958.1	26126.9	23604.8	19165.2
Enhancement factor (EF)	None	450.4	5199.1	11359.5	10262.9	8333.0